

-1125 GGAATTCCTG AAAACACTCA AGTTTAAGTA AAAGGTAGG AGGGGCACTG GGGTGATGAA  
EcoRI GATA-5

-1065 AGAGCTGGAG GGAACACTACAT GTTTAAAAGA CCGAGGGCTA GGAGGGGTTA AATAGTCAGG

-1005 GATCTTAAAG ACGTCGTCAA TAGCTAGAAT GTGGAGCTGA GACAGGCATT GACGAGATGA  
1006E|→

-945 AGTCCGAAGC CTTTGTCTG CTAAGTCTGC TTCAGACAGA AATCTTTTGT GTTGAAAGTG

-885 ACCACTGATC CACTAAGAAA AAAAAAGAGG TCCTTTTGG GCTCAGTAGC TAAAACGGCA  
|→ 862E

-825 GGGCTTTCAA GATCAAACAT GTCATTGAGT TTTGACACCT CTCTCATCTT TGCTCTCTTT

-765 GTGTTAGCTT CATTCTTCT GTGAAATGGT CCCCTGATCT CCCCAGAACA CAGCGTGGAA

-705 GGAACCATTG ATATTGGTTG CTTATGCAGA TCTCAGAACT TTCAAGGCCA CCTTCTTTTC

-645 AGGAGGTCTA GACCTATCTA GCTTAGATTC CCCAGGAGAA TGGCAAGATC TTGGCCTTGT

-585 CTGAGCTTAT GGAAGCAGAG AAGGGGGCAG GTGCAAAAGA CTCTCTTCCA GAACTCCGGA

-525 GAAATTTGCT TTTCAAACT AGACAGCACC CTGCTGCCTA CTAAAGAAGT AGGTCCAAGG

-465 TCCTAATGTG CATATTCTCC GCTATACTCT TAGCTTTCCA GAAACTAGA ATCATCAGTT

-405 TGGGTAAGAA CATAGAGGAA AACAGAAACG CCCCCAACC TACCCCATGT CCAGAGAGCC

-345 TTGACCTACT TGTCTCCCTC CCACTCTCAA CCCTCCCAGT CTTGCTTCAA ACCTCTCCAC

-285 GTCATGCCCC AACTTCGGAG CATTTGAACT CTGAGCAGTG GGGTCGCTTT CGCCTCAGC  
CREB 283E|→

-225 ACACCCACC TCGGCAGGCC CAGTCAAAGG TCCCTCACAG GGACACCTTT TTTTCCCTGG

-165 GATCCCGCGC TTCGCCTCCG GGGCGGAGAC TCCTCCCCTA GTAGTTCCAC TTGTGTTCCC  
↓r 133E|→ ↓h E-Box

-105 TAGAAGAGCA GCCGGGACGG CAAGAAGCCG GGACCTCCCC CTTCGTTCCA GGAAGTCCCG

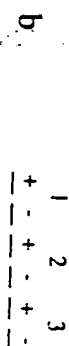
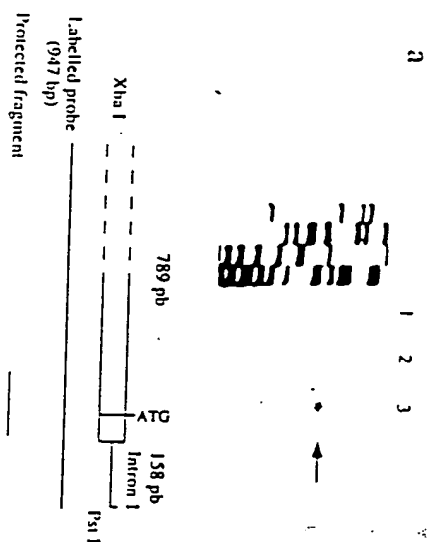
-45 CGCAGTGGGC ACTTCAGCCC TGGAGGCCGC GAGCCCCACC CGGGTGAAGG CGGCTGCGCG  
+1

+16 GCTTCAGCAC CACGGACAGC GCTCCCGTCC GCAGCCCTTG TGTCAGCGAG CGTCCGCGCT  
NRSE/REI Eco47III

+76 CGCGCTATGC AGGCGCATGG CCCGGTGCTC CAACTCTATG GCGCTGCTGT TCAGCTTTGG

+136 CCTCCTTTGG CTGTGTTTCA gtaagaatt

Figure 1



AS	AS-1		
	1	2	3
AS-2	p2	p0	pEa2
	p1	pEa2	pEa3

Figure 2

# Luciferase activity

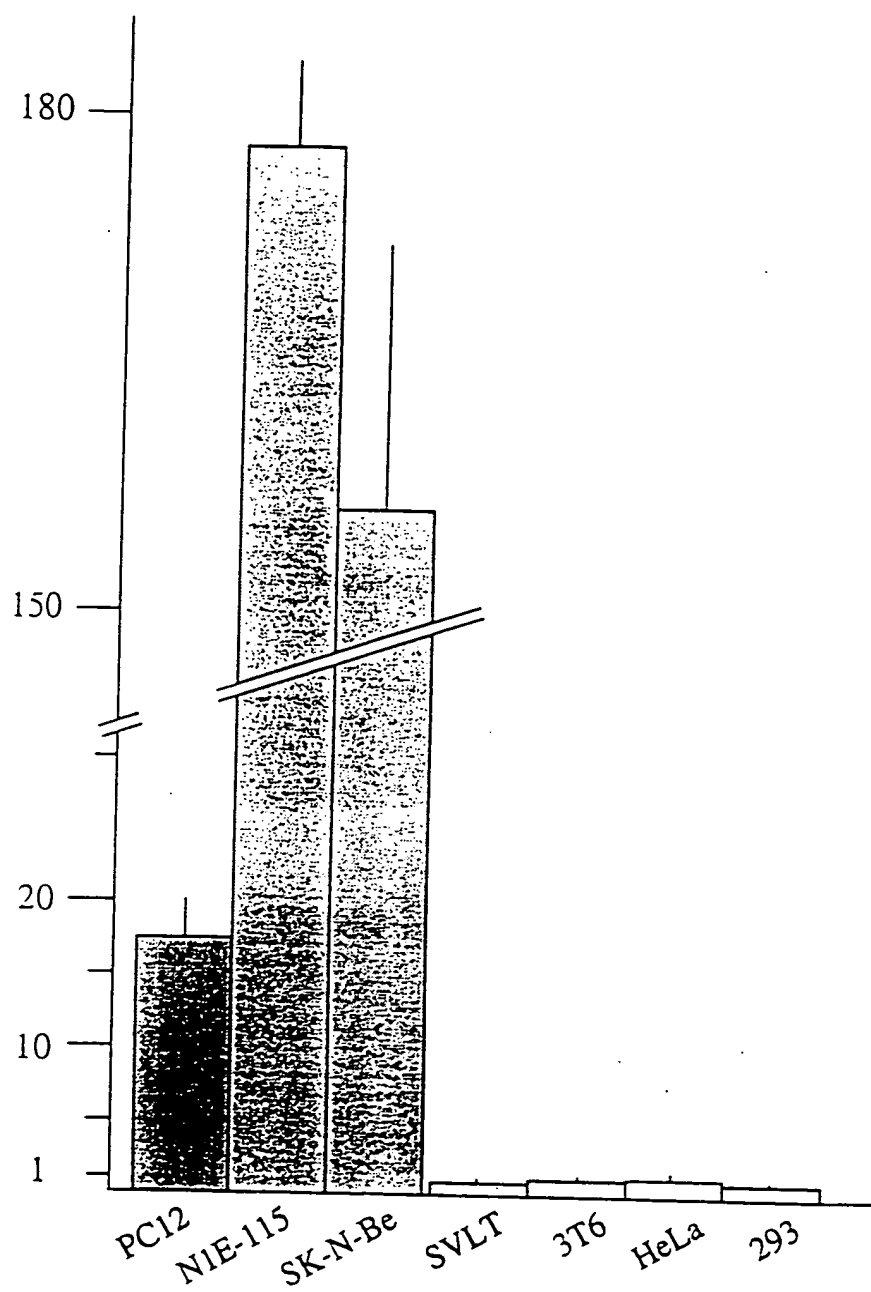


Figure 3

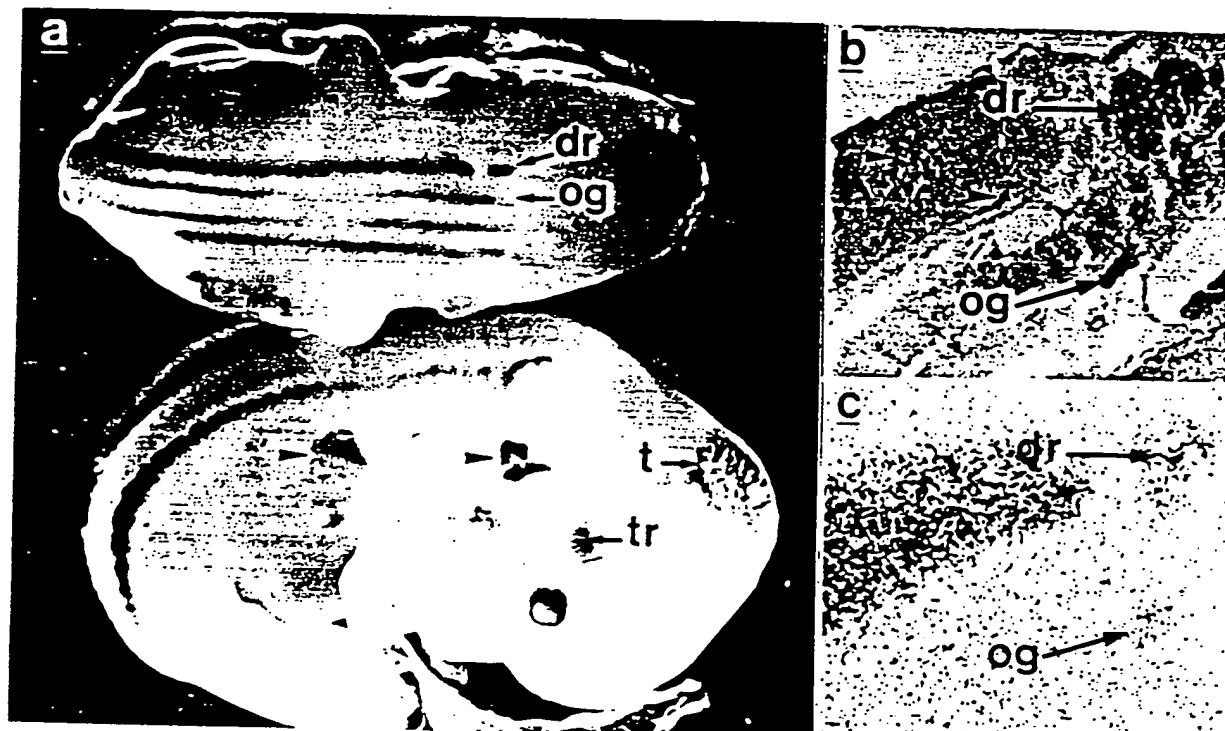


Figure 4

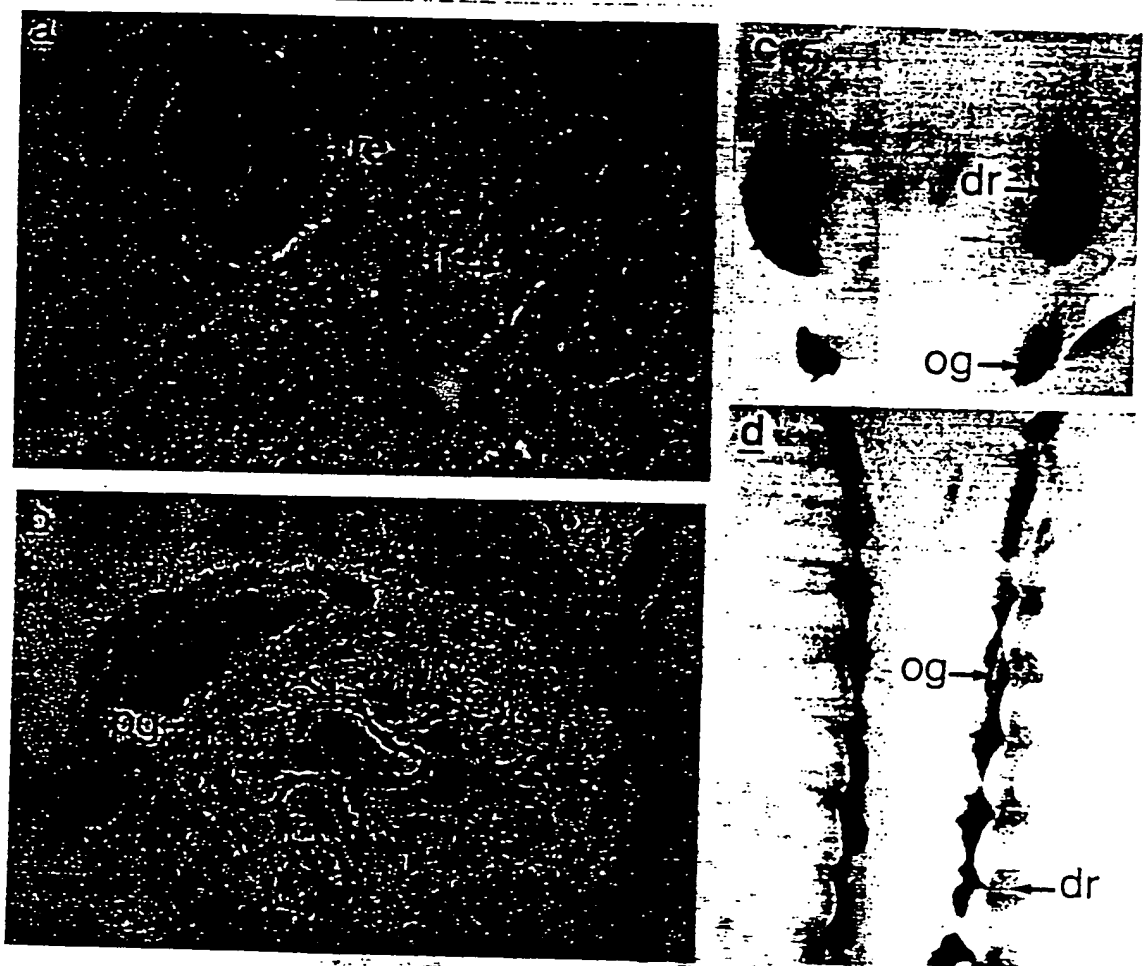


Figure 5

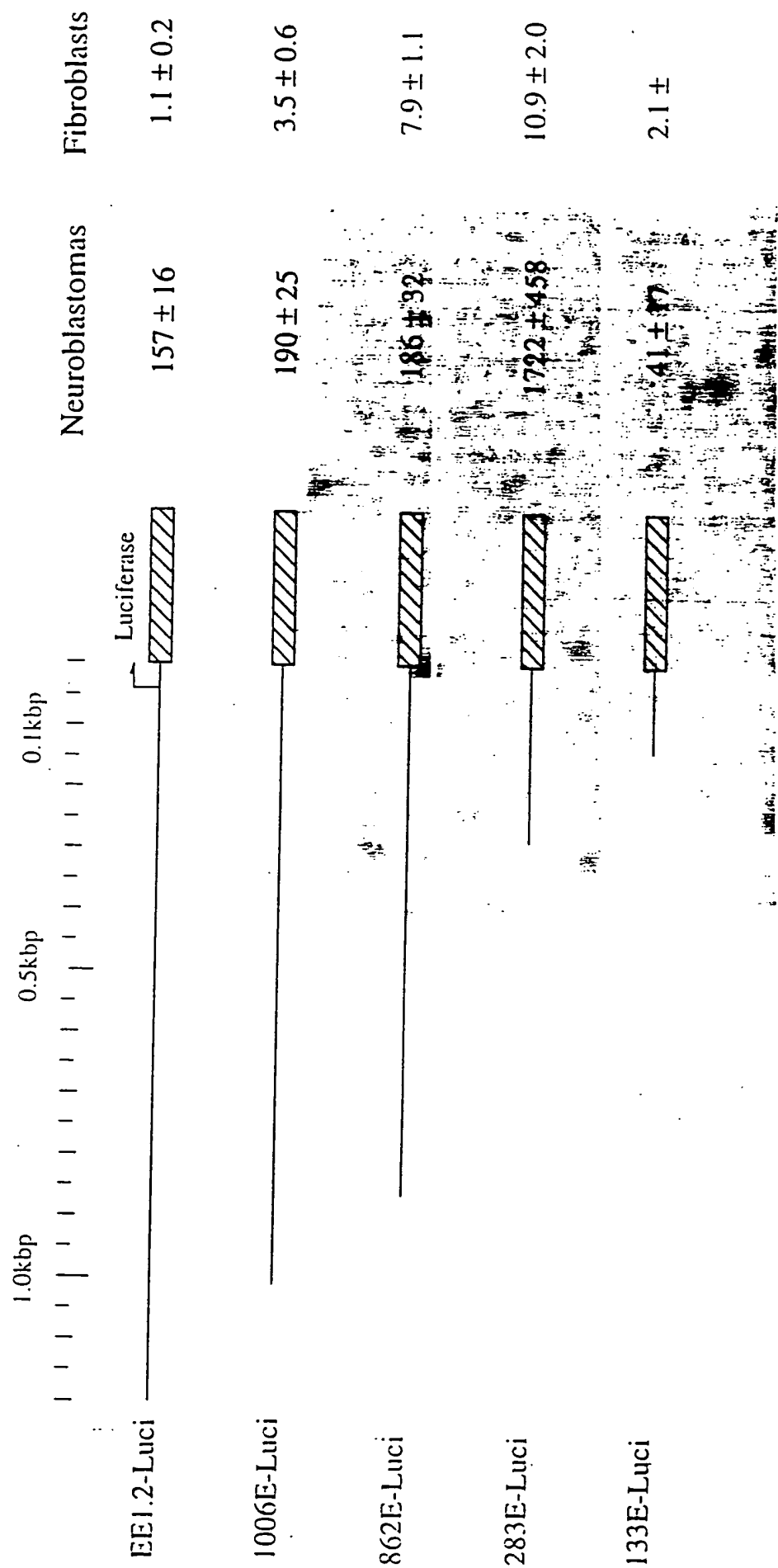


Figure 6

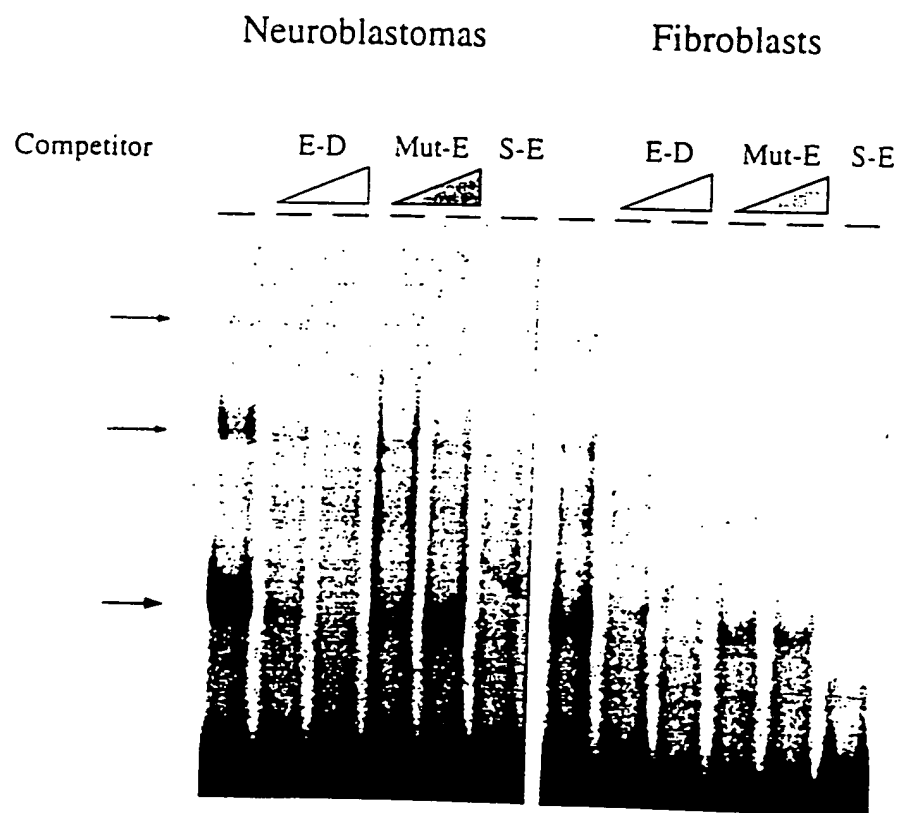


Figure 7

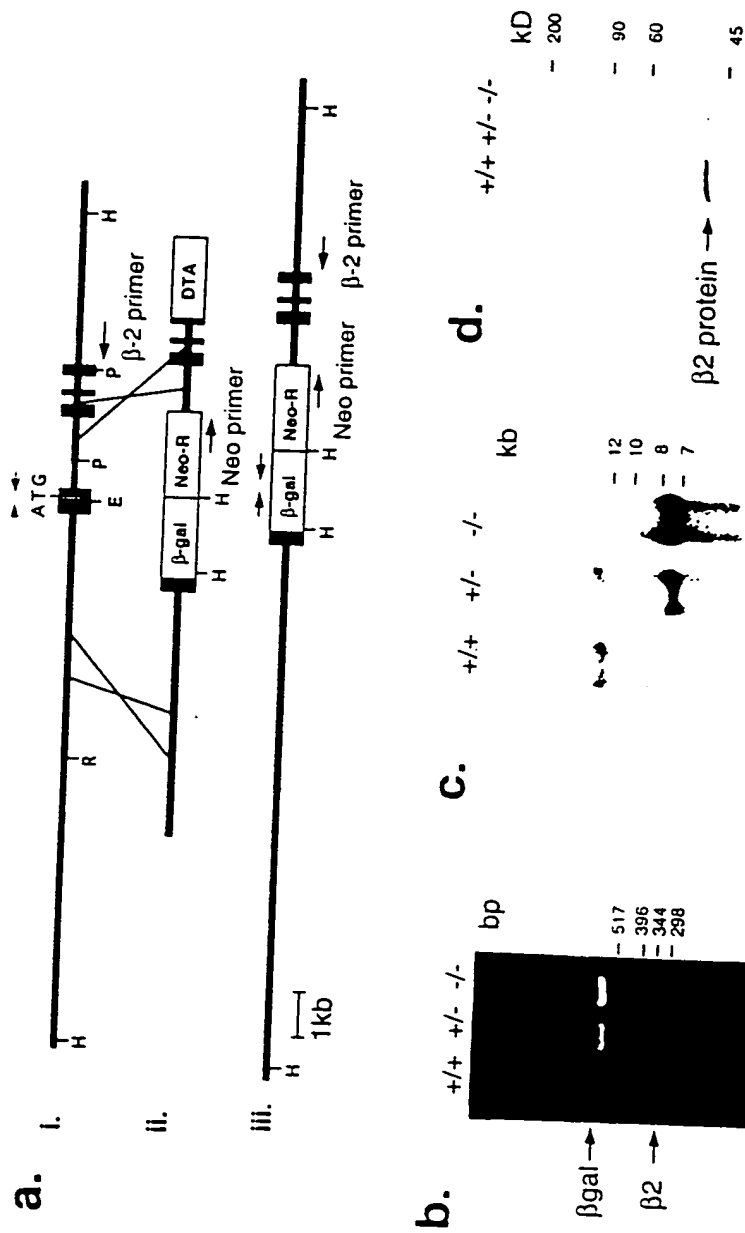


Figure 8



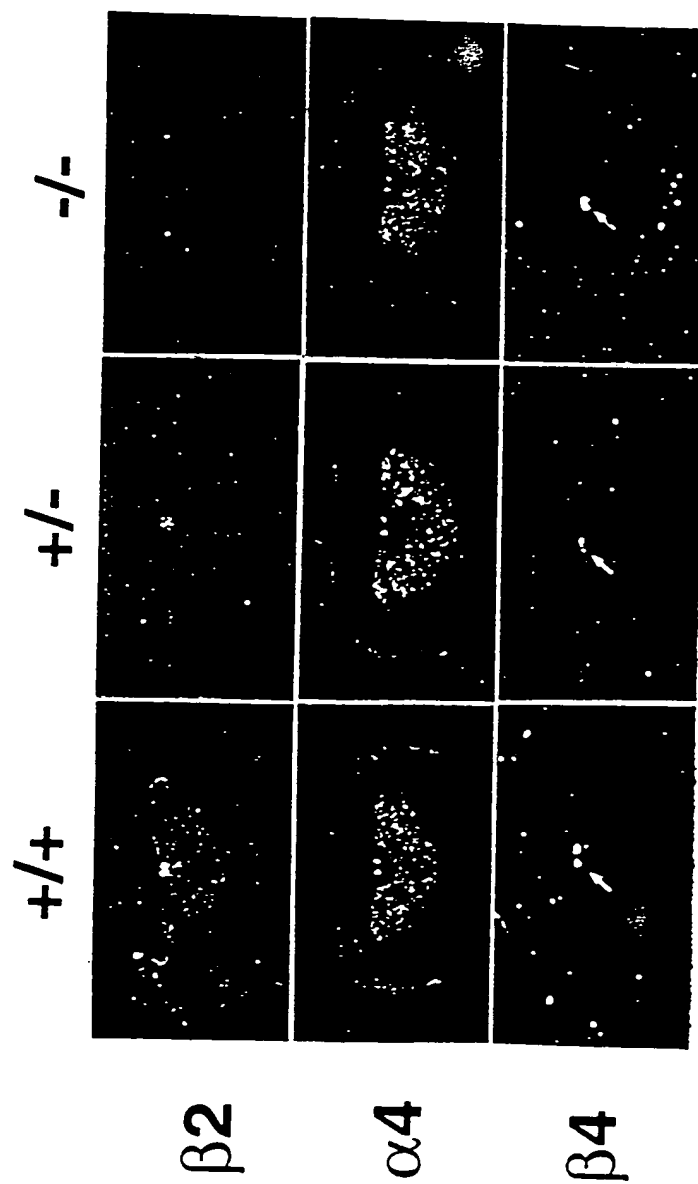
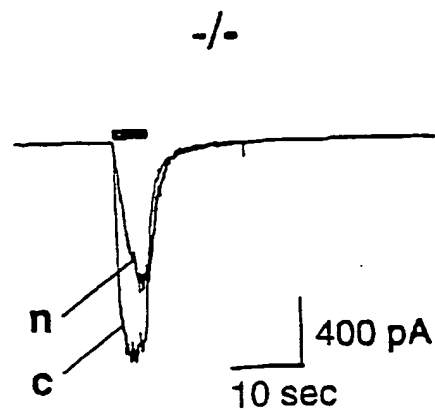
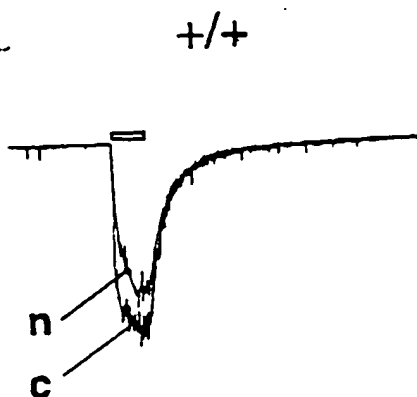


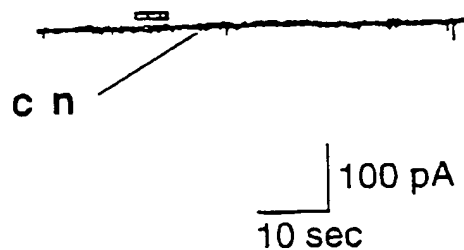
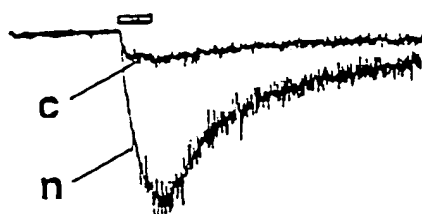
Figure 9 A

	+/+	+/-	-/-
striatum			
thalamus			
tectum			

medial  
habenula



anterior  
thalamus



n - nicotine 10 $\mu$ M  
c - cytisine 10 $\mu$ M

Figure 10 A



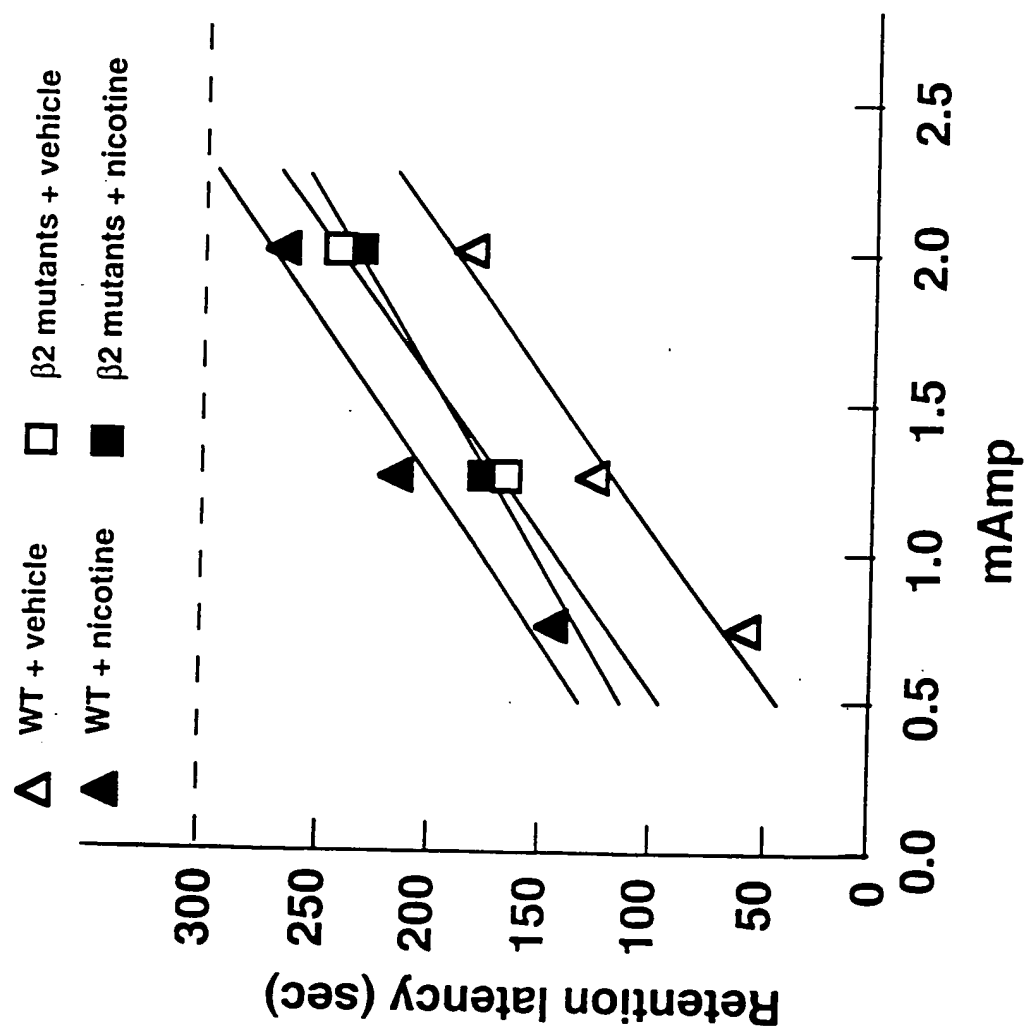


Figure 11 A

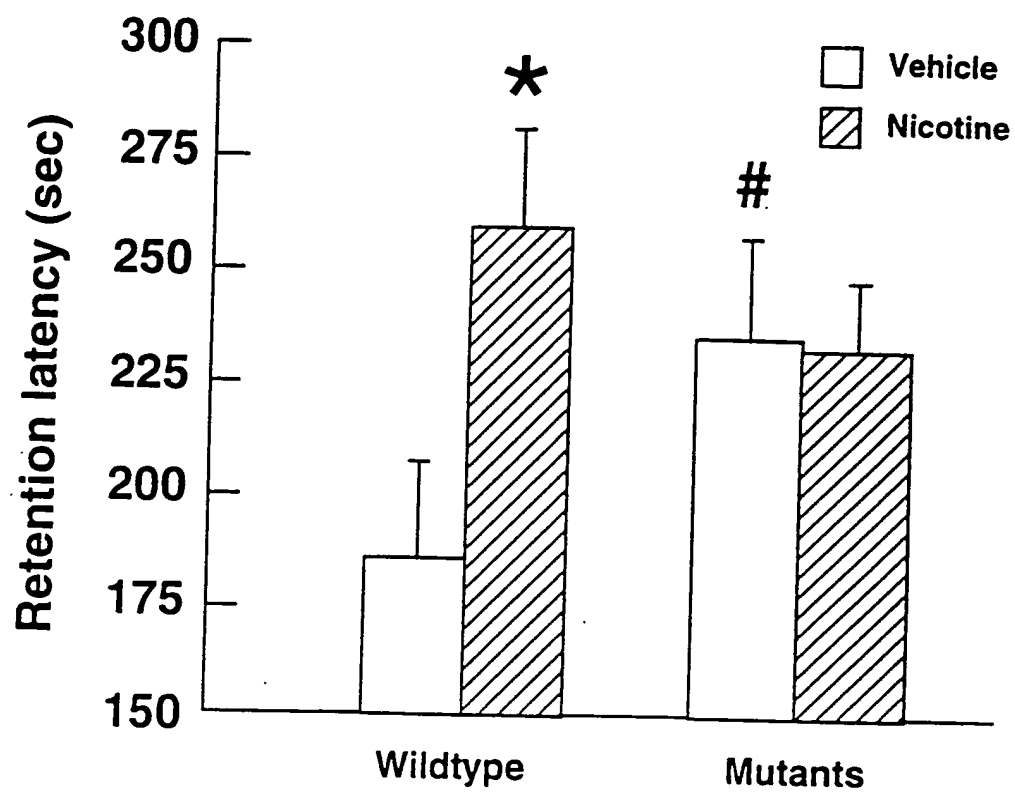


Figure 11 B

Ap : Apa I  
 S : Sal I  
 Ba : BamH I  
 Er : EcoR I  
 B47 : Bco47 III

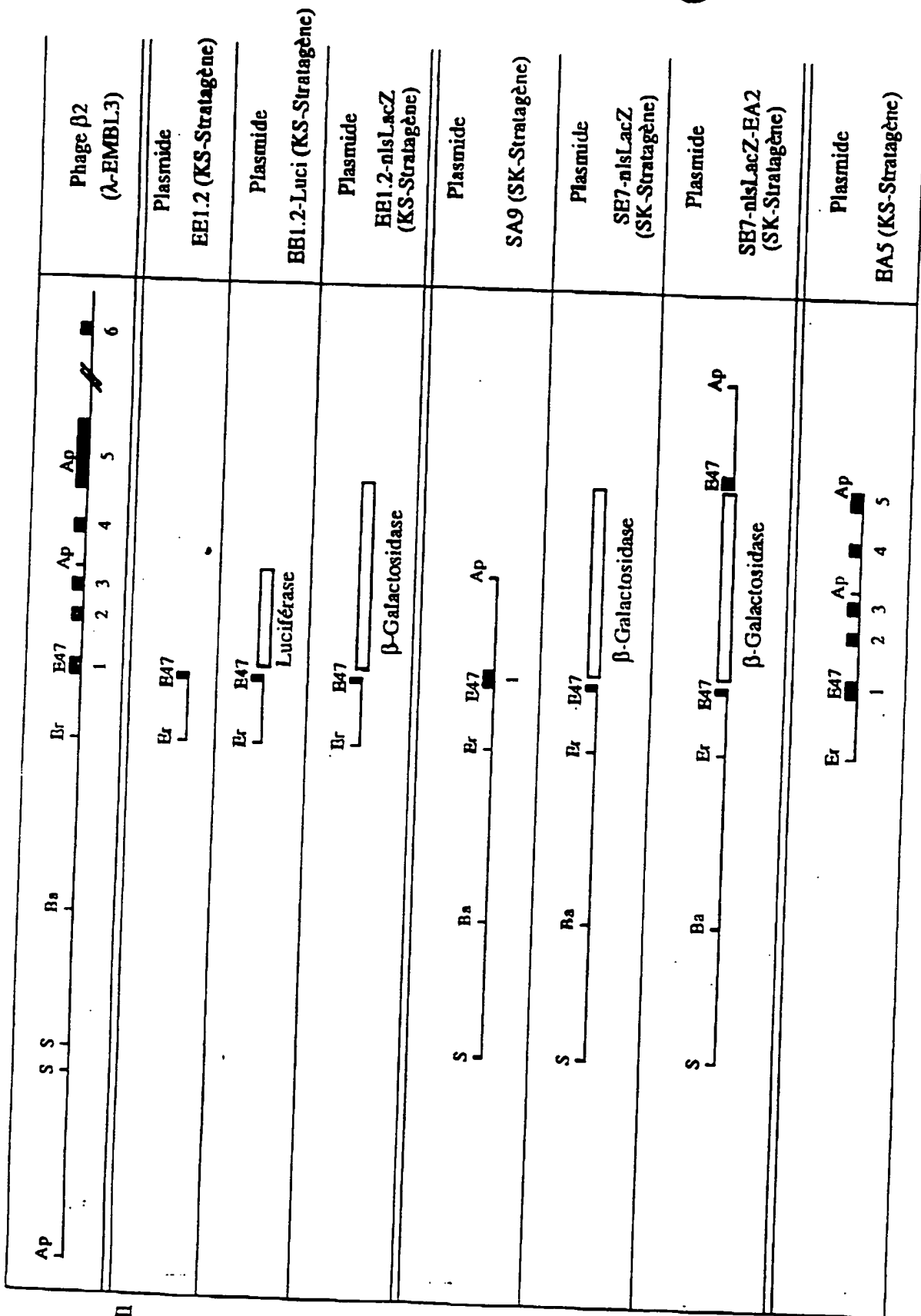


Figure 12

A

	Fibroblasts (3T6)	Neuroblastomas (SK-N-Be)
EE1.2-Luci wild type	1.1 (100%)	157 (100%)
EE1.2-Luci / NRSE/RE1	115.5 ± 13.8 (1050%)	502 ± 204 (320%)
EE1.2-Luci / E-Box	ND	94 ± 14 (60%)

B

Mouse $\beta 2$	TGCGCGGC.TTCAGCACACGGACAGCGC.TCCCGTCC
Sodium Channel (nt 29)	ATTGGGTT.TTCAGAACACGGACAGCAC.CAGAGTCT
SCG10 (nt 621)	AAAGCCAT.TTCAGCACACGGAGAGTGC.CTCTGCTT
Synapsin I (nt 2070)	CTGCCAGC.TTCAGCACCGGGACAGTGC.CTTCGCCC
CAML1 (nt 1535)	TACAGGCC.TCCAGCACACGGACAGCAG.ACCGTGAA
Calbindin (nt 1093)	CCGAACGG.AGCAGCACCGGGACAGCGC.CCCGCCGC
Neurofilament (nt 383)	ATCGGGGT.TTCAGCACACGGACAGCTC.CCGCGGGG
	TTCAGCACACGGACAGCGC

Table 1